

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (Currently Amended) A driver, comprising:

a rotor to which a magnet is fixed, adapted to be rotated with an axis portion as a center;

a first bearing for supporting one end of the axis portion of the rotor; ~~and~~

a second bearing for supporting the other end of the axis portion of the rotor; and

a yoke arranged in a position shifted in a thrust direction with respect to the magnet,

wherein the axis portion of the rotor is biased in an axial direction of the rotor and in a radial direction of the rotor by a magnetic force acting between the yoke and the magnet, and

a fitted portion of the first bearing into which the axis portion is fitted is formed into has a tapered shape, and the axis portion is brought into contact with the portion having the tapered shape of the first bearing so as to prevent the axis portion of the rotor from being shifted in one direction of the radial direction of the rotor at the fitted portion of the first bearing by being biased in the radial direction.

2. (Original) A driver according to claim 1, wherein the portion of the first bearing into which the axis portion is fitted has a conical shape.

3. (Original) A driver according to claim 1, wherein a portion of the axis portion which is fitted into the first bearing has one of a semi-spherical shape and a spherical shape.

4. (Original) A driver according to claim 1, wherein the portion of the first bearing into

which the axis portion is fitted further has a shape for regulating a radial movement of the axis portion.

5. (Canceled).

6. (Canceled).

7. (Currently Amended) A driver, comprising:

a rotor to which a magnet is fixed, adapted to be rotated with an axis portion as a center;
a first bearing for supporting one end of the axis portion of the rotor; and
a second bearing for supporting the other end of the axis portion of the rotor; and
a yoke arranged in a position shifted in a thrust direction with respect to the magnet,
wherein the axis portion of the rotor is biased in an axial direction of the rotor and in a
radial direction of the rotor by a magnetic force acting between the yoke and the magnet, and
a fitting portion of the axis portion which is fitted into the first bearing is formed into
has a tapered shape, and the first bearing is brought into contact with the portion having the
tapered shape of the axis portion so as to prevent the axis portion of the rotor from being shifted
in one direction of the radial direction of the rotor at the fitted portion of the first bearing by
being biased in the radial direction .

8. (Currently Amended) A device for adjusting a quantity of light, comprising:

a rotor to which a magnet is fixed, adapted to be rotated with an axis portion as a center;
a first bearing for supporting one end of the axis portion of the rotor;
a second bearing for supporting the other end of the axis portion of the rotor; and
a yoke arranged in a position shifted in a thrust direction with respect to the magnet,

~~a member for adjusting a quantity of light which moves in accordance with a rotation of the rotor,~~

wherein the axis portion of the rotor is biased in an axial direction of the rotor and in a radial direction of the rotor by a magnetic force acting between the yoke and the magnet, and

a fitted portion of the first bearing into which the axis portion is fitted is formed into has a tapered shape, and the axis portion is brought into contact with the portion having the tapered shape of the first bearing so as to prevent the axis portion of the rotor from being shifted in one direction of the radial direction of the rotor at the fitted portion of the first bearing by being biased in the radial direction .

9. (Original) A device for adjusting a quantity of light according to claim 8, wherein the portion of the first bearing into which the axis portion is fitted has a conical shape.

10. (Original) A device for adjusting a quantity of light according to claim 8, wherein a portion of the axis portion which is fitted into the first bearing has one of a semi-spherical shape and a spherical shape.

11. (Original) A device for adjusting a quantity of light according to claim 8, wherein the portion of the first bearing into which the axis portion is fitted further has a shape for regulating a radial movement of the axis portion.

12. (Canceled).

13. (Canceled).

14. (Original) A device for adjusting a quantity of light according to claim 8, wherein the rotor is provided with a driving lever, and the driving lever is fitted into the member for

adjusting a quantity of light.

15. (Currently Amended) A device for adjusting a quantity of light according to claim 13 ~~8~~, wherein the first bearing is provided in a first case, the second bearing is provided in a second case, the first case and the second case constitute a bobbin, and the coil is wound around the bobbin.

16. (Original) A device for adjusting a quantity of light according to claim 9, wherein the conical shape is formed so as for an angle of its vertex to fall within the range of 90 to 110 degrees.

17. (Original) A device for adjusting a quantity of light according to claim 8, wherein a position of the rotor is detected by a Hall element.

18. (Currently Amended) A device for adjusting a quantity of light, comprising:
a rotor to which a magnet is fixed, adapted to be rotated with an axis portion as a center;
a first bearing for supporting one end of the axis portion of the rotor;
a second bearing for supporting the other end of the axis portion of the rotor; and
a yoke arranged in a position shifted in a thrust direction with respect to the magnet,
~~a member for adjusting a quantity of light which moves in accordance with a rotation of~~
the rotor,

wherein the axis portion of the rotor is biased in an axial direction of the rotor and in a radial direction of the rotor by a magnetic force acting between the yoke and the magnet, and

a fitting portion of the axis portion which is fitted into the first bearing is formed into
~~has a tapered shape, and the first bearing is brought into contact with the portion having the~~

tapered shape of the axis portion so as to prevent the axis portion of the rotor from being shifted in one direction of the radial direction of the rotor at the fitted portion of the first bearing by being biased in the radial direction.